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2 1. (Amended) A method for improving receive performance in a data network,  
3 the method comprising:  
4 receiving up to a plurality of indications denoting the start of frame transmission on a  
5 corresponding plurality of communication links;  
6 identifying that at least one of the received indications denote the start of a flow; and  
7 dedicating a receive buffer from a plurality of receive buffers to receive all frames  
8 associated with the identified flow.

1 2. (Amended) The method of claim 1, wherein identifying the start of flow  
2 includes analyzing information embedded within each of the received frames to determine  
3 source and destination information associated with said frames.

1 3. (Amended) The method of claim 1, further comprising determining whether  
2 the identified flow requires preservation of transmission order.

1 4. The method of claim 3, further comprising promoting frames of the received  
2 flow in the order received, unless it is determined flow requires preservation of frame order.

1 5. The method of claim 4, further comprising assigning a pointer value to each  
2 frame of the identified flow corresponding to commencement of transmission, creating a list  
3 of pointer values corresponding to transmission order if it is determined that the identified  
4 flow requires preservation of transmission order.

1 6. The method of claim 1, further comprising promoting the received frames  
2 from the dedicated buffer in the order received, without regard to frame transmission order,  
3 unless it is determined that the identified flow requires preservation of transmission order.

1 7. The method of claim 6, further comprising determining whether the identified  
2 flow requires preservation of transmission order by analyzing protocol identification  
3 information embedded within the received frames.

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1 8. The method of claim 1, wherein the buffer order does not correspond to the  
2 order of frame transmission.

1 9. (Cancelled)

1 10. (Cancelled)

1 11. (Cancelled)

1 12. (Cancelled)

1 13. (Cancelled)

1 14. (Cancelled)

1 15. (Cancelled)

1 16. (Cancelled)

1 17. (Cancelled)

1 18. (Cancelled)

1 19. (Cancelled)

1 20. (Cancelled)

1 21. A medium having embodied thereon a program for processing by a network  
2 device, the program comprising:

3 a module to receive an indication to denote commencement of a flow of frame  
4 transmissions; and

5 a module to indicate at least one receive buffer to receive all frames associated with  
6 the flow.

1        22.    The medium of claim 21, wherein the program further comprises a module to  
2   promote frames of the received flow in the order received, unless it is determined flow  
3   requires preservation of frame order.

1        23.    The medium of claim 21, wherein the program further comprises a module to  
2   assign a pointer value to each frame of the identified flow corresponding to commencement  
3   of transmission, creating a list of pointer values corresponding to transmission order if it is  
4   determined that the identified flow requires preservation of transmission order.

1        24.    (Cancelled)

1   *Sub 25*   25.    (New) Adapted for a data network including a plurality of communication  
2   links, a method comprising:  
3          receiving at least one indication denoting a start of frame transmission on the  
4   corresponding plurality of communication links;  
5          identifying a received indication denotes commencement of a flow;  
6          dedicating a buffer from a plurality of buffers to receive all frames associated with the  
7   identified flow;  
8          determining whether the identified flow requires preservation of frame transmission  
9   order; and  
10          relying on the received indications associated with each frame to preserve a state of  
11   frame order transmission.

1        26.    (New) The method of claim 25, wherein identifying the start of flow includes  
2   analyzing information embedded within each of the received frames to determine source and  
3   destination information associated with said frames.

1        27.    (New) The method of claim 25 wherein the relying on the received  
2   indications comprises promoting frames of the received flow in the order received, unless it  
3   is determined flow requires preservation of frame transmission order.

1   *Sub 28*   28.    (New) The method of claim 25 wherein the relying on the received  
2   indications comprises assigning a pointer value to each frame of the identified flow

- 3 corresponding to commencement of transmission, creating a list of pointer values  
4 corresponding to transmission order if it is determined that the identified flow requires  
5 preservation of frame transmission order.

1 29. (New) The method of claim 28, further comprising promoting the received  
2 frames from the dedicated buffer in the order received, without regard to frame transmission  
3 order, unless it is determined that the identified flow requires preservation of frame  
4 transmission order.

1 30. (New) The method of claim 25, further comprising determining whether the  
2 identified flow requires preservation of frame transmission order by analyzing protocol  
3 identification information embedded within the received frames.

1 31. (New) The method of claim 25, wherein the buffer order does not correspond  
2 to the order of frame transmission.

1 Sub 32. (New) A network device comprising:  
2 means for receiving an indication to denote commencement of a flow of frame  
3 transmissions; and  
4 means for indicating at least one receive buffer to receive all frames associated with  
5 the flow.

1 33. (New) The network device of claim 32, further comprising a means for  
2 promoting frames of the received flow in the order received, unless it is determined flow  
3 requires preservation of frame order.

1 Sub 34. (New) The network device of claim 32, further comprising means for assigning a  
2 pointer value to each frame of the identified flow corresponding to commencement of  
3 transmission, and creating a list of pointer values corresponding to transmission order if it is  
4 determined that the identified flow requires preservation of transmission order.